

# Holden Mine Remediation Project Update

**July 2016**

Summer work on the Holden Mine Remediation project was in full swing during the month of July, 2016. Temperatures warmed to above 80 degrees by the end of the month and lots of progress was made.

Grading operations continued to reshape all three of the tailings piles. The goal of re-shaping these piles is to make them less steep and more stable, especially to withstand the forces of an earthquake.

Screened borrow, (soil material that has been screened to remove the largest of rocks), was placed over the tailings to support conifers and shrubs, which will be planted next spring.



## **Overview of activities at Tailings Pile1**

One of the major projects that was completed during the month was the jet grouting operations on the tailings piles. Jet grouting is a process by which cement columns are placed vertically inside the tailings piles to fortify the piles in the event of an earthquake. A total of 783 columns were installed into tailings piles 2 and 3.

Good progress was also made on the construction of the interceptor channels around the tailings piles. These interceptor channels will collect storm water and surface water and divert that water from flowing into the tailings piles and becoming contaminated. Collecting this water before it reaches the piles will help decrease the work load on the Mine Water Treatment Plant.



**for the greatest good**



**View of Interceptor Channel-3 south of Tailings Pile 1 looking west**



**Shotcrete Channel – placing shotcrete on STP-3 water diversion channel**

A diversion channel was also constructed around the borrow site south of Tailings Pile 3 (STP3 Borrow). The “shotcrete channel” will collect and divert clean water around STP3 Borrow to reduce the amount of water infiltrating Tailings Pile 3 and requiring treatment. The channel was constructed, then fortified with colored shotcrete.